



The internet and export marketing performance

The empirical link in export market ventures

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Abstract

Purpose – This study seeks to examine the empirical link in export market ventures of the relationship between the internet (when it is used for communication, networking, market research, sales, image enhancement, cost reduction and competitive advantage purposes) and export marketing performance.

Design/methodology/approach – Data were gathered via a self-administered mail survey of Australian exporters. The sample consisted of 133 Australian firms coming from a wide cross-section of industries.

Findings – The findings indicate that, when the internet was used to achieve a competitive advantage for the firm and reduce the costs associated in doing international business, these uses of the internet were significant in discriminating between high and low export marketing performance. Furthermore, the international experience of the export venture's management was a significant factor in discriminating between high and low export marketing performance.

Research limitations/implications – From a methodological perspective, a potential concern may be that the measures are all self-reported. Consequently, the relationships tested may be susceptible to the influence of common method variance. Evidence has been provided that, when the internet is used for cost reduction purposes and as a competitive weapon, this will have a positive impact on export marketing performance.

Originality/value – A major contribution of this study is that it re-validates measures for the different uses of the internet, namely, communication, networking, market research, sales, image enhancement, cost reduction and competitive advantage.

Keywords Internet, Export markets, International business

Paper type Research paper

Introduction

The internet has experienced dramatic growth. The world online population has been estimated to be around 1.5 billion by 2007, a marked increase compared to the year 2000, at 418 million people (Marketing News, 2003). Furthermore, the number of host computers linked to the internet is estimated to have risen from 1.3 million in 1993 to 233.1 million in 2004, again representing a substantial increase (Internet Systems Consortium, 2004). Commercial websites have also proliferated. According to the Online Computer Library Centre (2004), the number of websites has increased from 2.8 million in 1998 to more than 9 million in 2002, representing an increase of more than threefold over a four-year period.

In Australia, the internet has also undergone a similar trend. Australia ranked fifth amongst the Organisation for Economic Cooperation and Development (OECD) countries, behind Denmark, Japan, Finland and Sweden, in relation to the proportion of businesses with ten or more employees using the internet in 2001 (OECD, 2002).



The Australian Bureau of Statistics (ABS) (2004) estimated out of 680,000 Australian businesses, 83 per cent were using a computer as at 30 June 2003. The percentage of businesses having access to the internet was 71 per cent, or 485,000 businesses. Approximately 23 per cent of Australian businesses (or 157,000 businesses) reported having a web presence, either with their own website or a presence on another firm's website. Also, the proportion of businesses with internet use that reported placing orders for goods and services over the internet during 2002-2003 was 39 per cent. For this same period, 19 per cent of businesses with internet use indicated they had received orders via the internet or web. This is approximately double the number of businesses with internet use that reported receiving orders via the internet or web during 2001-2002. Internet income earned by 91,000 Australian businesses has reached approximately \$24.3 billion in 2002-2003, more than double that of 2001-2002 (ABS, 2004). This change is considered to be a good indicator of the increasing practices of internet commerce, defined as the use of information technology – the internet, and its applications, to support business activities (Overby and Min, 2001; Poon, 1999). As such, given the importance of exporting to a nation's economy (Leonidou and Katsikeas, 1996) and the increasing use of the internet in business activities it is timely to constitute a study that examines the different uses of the internet in exporting. Furthermore, it is also timely to examine whether internet usage is a significant predictor of export marketing performance when used for these purposes.

To date the internationalisation of Australian companies has attracted little attention from researchers (Maitland and Nicholas, 2002). As firms in different countries tend to emphasise different types of performance measures for cultural, economic or sectoral reasons (Zou *et al.*, 1998) this study makes a significant contribution to the literature by examining the export marketing performance of Australian export market ventures and the use and the significance of the internet in export marketing (Julian and Holtedahl, 2004). Furthermore, the use of a composite measure of export marketing performance (Cavusgil and Zou, 1994; Julian, 2003), as used in this study, also helps enhance the literature by enabling different findings from different studies across different national settings to be compared.

Literature review

With the emergence of the internet, there has been an increasing volume of literature on the role of the internet in business activities. Approximately 270 journal articles on the application of the internet in marketing in general were written in the 13-year period between 1987 and 2000 (Ngai, 2003).

The internet has been identified as one of the most significant marketing tools in the global marketplace (Rodgers and Sheldon, 2002), for its enormous potential use for businesses. According to Hamill (1997), an internet connection can substantially improve communications with actual and potential customer's, suppliers and partners abroad, generate a wealth of information on market trends and developments worldwide, including the latest technology and R&D, and be a very powerful promotion and sales tool. The internet, therefore, is "completely reshaping the way we communicate with others, conduct our business, target customers or distribute products and services" (Schlegelmilch and Sinkovics, 1998, p. 169).

The internet has been considered to fundamentally change the dynamics of the global economy (Poon and Swatman, 1998; Selby, 2000; Singh and Kundu, 2002), leading to a profound impact on the world of international business (de la Torre and Moxon, 2001; Park and Jun, 2003). The explosion of international marketing activity on

the internet has provided a fundamentally different environment for international marketing (Eid and Trueman, 2002; Hamill, 1997; Hitt *et al.*, 2001). Not only has the marketing mix and the adopted marketing strategies been transformed (Gordon and de Lima-Turner, 1997; Strauss and Frost, 2001), the efficiency of traditional marketing functions has also increased. The internet serves as a vehicle that accommodates the process of conducting export business as well as a tool deployed for promotion, information and export revenue enhancement (Farhoomand and Lovelock, 2001; Palumbo and Herbig, 1998).

Much of the interest in the applications of the internet focuses on the disintermediation vs re-intermediation process caused by this frontier phenomenon. Disintermediation refers to the process of bypassing local intermediaries to purchase goods from the internet at lower prices (Benjamin and Wigland, 1995; Quelch and Klein, 1996). It is argued that as the internet removes all geographical constraints, a firm may arguably "leap-frog" the conventional stages of internationalisation (Bennett, 1997). That is, through the internet the firm can establish its instant presence throughout the world, making direct and immediate entry into foreign markets, via undertaking the activities previously performed by intermediaries (Dunt and Harper, 2002). The internet, therefore, has the potential to transform and even make obsolete some distribution channels (Wynne and Berthon, 2001). However, it has also been evidenced that the internet has added channel intermediaries, rather than displaced them (Williamson, 1999). New intermediaries that help buyers and sellers conduct business are emerging, which is identified as the process of re-intermediation (Klein and Quelch, 1997). These intermediaries provide services in collection, collation, interpretation and dissemination of vast amounts of information, such as directories, advertising, e-payment, insurance, network diagnostics, authentication and certification. This process tends to confirm that, although the middleman can be eliminated from the distribution channel, its functions cannot (Julian and Liesch, 2004).

However, despite the growth and benefits of internet usage limited scholarly attention has been paid to the investigation of the role of the internet in international marketing (Brock, 2001; Hoffman and Novak, 1996; Prashantham, 2003). As such, there has been limited empirical research on the extent to which the internet has had an impact on a firm's export marketing performance. Some studies (Bennett, 1997; Hamill, 1997; Samiee, 1998) have attempted to link access to the internet to a firm's export marketing performance, however, the empirical findings are inconclusive and those studies are now quite dated requiring further investigation. For example, the Bennett (1997) study did not specifically investigate the extent to which the internet may impact the export marketing performance outcomes of the firms in the sample. Hamill (1997) also recognised a gap in the export marketing literature regarding the impact of the internet in international marketing. However, Hamill (1997) did not perform any empirical analysis to verify his conceptual framework. Consistent with Bennett (1997) and Hamill (1997), Samiee (1998) also claimed that the internet can be used as a vehicle that accommodates the process of conducting export business or a tool deployed for promotion, information and export revenue enhancement. Nevertheless, the Samiee (1998) study was largely exploratory and examined the potential impact of the internet from a conceptual viewpoint not formally testing research propositions or hypotheses.

As such, the impact of the internet in export marketing has not been fully examined. Also, these previous studies have been conducted predominantly in the USA (Samiee, 1998) and Europe (Bennett, 1997). Additionally, Prashantham (2003) suggested that much of the early literature was based on lessons learnt from trial and error, rather

than from robust empirical enquiry. Furthermore, both the size and the importance of the internet have changed significantly since these studies were undertaken. Such rapid developments lead to a relatively high risk of obsolescence in research findings in this field (Fisher and Reibstein, 2001) requiring further investigation into the relationship between the internet and export marketing performance.

From a sample of UK exporting businesses, Bennett (1997) concluded that the internet made it feasible for firms to undertake significant export opportunities and get faster, cheaper and easier access to world markets. Not only does the internet furnish firms with a low-cost gateway to global markets, its benefits also extend to communication, networking, market research, image enhancement, providing a firm with a competitive advantage and the improvement of sales volume.

As far as communication is concerned, in an era of network or relationship marketing, as well as just-in-time manufacturing and delivery, maintaining effective internal and external communications is critically important to the firm's successful internationalisation process (Johanson and Vahlne, 1990). The internet allows businesses to communicate widely with actual and potential foreign customers, strategic partners, trading agents and distributors (Dou *et al.*, 2002; Riddle, 1999; Schlegelmilch and Sinkovics, 1998). The capability of the internet in providing interactive, two-way communication plays an important role in the firm's maintenance of long-term relationships (Overby and Min, 2001). The internet as a communication medium, therefore, serves as one of the key aspects determining the success of exporting firms in their internationalisation process (O'Keefe *et al.*, 1998). As such, it is hypothesised that:

- H1.* The internet when it is used for communication purposes is a predictor for Australian export market ventures that experience high (vs low) export marketing performance.

Furthermore, the internet offers interactivity and dynamism for the exporting firms to conduct their exporting business both effectively and efficiently (Selby, 2000). This finding supports the argument by Bennett (1997, 1998) and O'Keefe *et al.* (1998) who indicated that the internet as an interactive medium serves as one of the key aspects determining the success of exporting firms. As such, it is hypothesised that:

- H2.* The internet when it is used for networking purposes is a predictor for Australian export market ventures that experience high (vs low) export marketing performance.

The internet also promises to be an efficient medium for conducting worldwide market research (Quelch and Klein, 1996). With the rapid pace of change in increasingly competitive international markets, timely and relevant information is essential for firms to grow their export volume and to proactively compete for their market standing (Aaby and Slater, 1989; Craig and Douglas, 2001; Czinkota and Johnston, 1983; Rabino, 1980). In this context, the internet enables firms to collect primary data via such tools as online surveys, bulletin boards, web visitor tracking, advertising measurement, customer identification systems and email marketing lists (Quelch and Klein, 1996). Sources of secondary data such as online newspapers and journals, extensive lists of individual country and industry market research reports, trade lists of suppliers, agents, distributors and government contacts and details on host country legislation can also be obtained (Hamill, 1997). The use of the internet for marketing intelligence gathering is regarded as one of the most important means a firm has at

its disposal to help develop its international markets (Riddle, 1999). As such, it is hypothesised that:

- H3.* The internet when it is used to conduct market research is a predictor for Australian export market ventures that experience high (vs low) export marketing performance.

As far as sales volume is concerned, the internet can be a very powerful sales tool (Hamill and Gregory, 1997). The firms are able to reach and sell to potential customers anywhere in the world both immediately and abundantly (Roccapriore, 2000), regardless of the country's remoteness (Bennett, 1998; Yu and Koslow, 1999). Furthermore, the dramatic growth in the online population means more potential business for exporting firms (Radosevich, 1999). The firms can generate sales leads, accept online orders, engage in online transactions with customers through secure online payment processing, or conduct transactions with suppliers (Prasad *et al.*, 2001). As a result, the internet is seen as critically important in enhancing the firms' existing export activities and further developing their export customer base (Dou *et al.*, 2002) leading to a boost in their global sales. As such, it is hypothesised that:

- H4.* The internet when it is used to increase sales volume is a predictor for Australian export market ventures that experience high (vs low) export marketing performance.

In relation to image enhancement, building a brand or corporate image is of prime interest in international markets (Yu and Koslow, 1999). A good web site can be used for a variety of purposes, including advertising, corporate visibility, brand name recognition, public relations, press releases, corporate sponsorship, direct sales, customer support and technical assistance (Leong *et al.*, 2003). Such attractive features of the internet as interactivity (Hoffman and Novak, 1996), high-capacity information storage (Palmer and Griffith, 1998) and digitalisation ability (Hason, 2000), are also found to positively impact the belief that the firm is more customer-oriented, responsive and sophisticated (Maddox *et al.*, 1997). This, in turn, results in a direct positive effect on buyers' future purchase intentions (MacDonald and Smith, 2004). As a result, the internet allows the exporting firm to improve its corporate image (Bloch *et al.*, 1996; Dholakia and Rego, 1998; Samiee, 1998; Sterne, 2001) and subsequently gain a global profile (McCausland, 2002). As such, it is hypothesised that:

- H5.* The internet when it is used for image enhancement purposes is a predictor for Australian export market ventures that experience high (vs low) export marketing performance.

As far as providing a low-cost gateway to international markets (Hamill and Gregory, 1997; Moen, 2002) the internet enables firms to transcend national boundaries and reach potential clients around the world making the internet a relatively inexpensive form of marketing (Lituchy and Rail, 2000). This results in a reduction in transaction costs for all parties involved (Dunt and Harper, 2002), including the costs of executing a sale, costs of procurement and costs associated with making and delivering a product (OECD, 1999), leading to an increase in profitability (Anthony, 2003). The internet makes it easier and more affordable for a greater number of firms with multiple plants, warehouses and supplier locations to fully coordinate their global activities and to engage in other inter-firm collaborations (Samiee, 1998). As a result, the internet offers

exporting firms many opportunities to obtain significant cost savings in various aspects of their international business activities. As such, it is hypothesised that:

- H6.* The internet when it is used for cost reduction purposes is a predictor for Australian export market ventures that experience high (vs low) export marketing performance.

In relation to competitive advantage, a long-lasting competitive advantage is likely to determine a firm's survival and prosperity in the information age. Internet technologies enhance the firms' competitive advantage (Ellsworth and Ellsworth, 1997; Slade and Van Akkeren, 2001) as the businesses seize the opportunities to explore how to become more productive and competitive (Poon and Strom, 1997). The internet is one of the very few tools that small businesses can use effectively to compete with their bigger rivals on the same grounds (Ramsey *et al.*, 2003). They use technology to invent new ways of conducting business, redefining the bases for competition in an industry (Schlegelmilch and Sinkovics, 1998) and addressing the needs of global customers located in different parts of the world (Quelch and Klein, 1996). As such, it is hypothesised that:

- H7.* The internet when it is used to achieve a competitive advantage is a predictor for Australian export market ventures that experience high (vs low) export marketing performance.

Finally, because management's international experience contributes to positive export performance (Cavusgil and Zou, 1994), export ventures have much to gain if they hire or train qualified personnel, accumulate international experience in a programmatic manner and allocate sufficient resources to fully capitalise on export market opportunities. A long term approach to cultivating international market opportunities is clearly appropriate, given the amount of learning that is required for successful international marketing operations. Companies should maintain international operations to cultivate international competence and ensure consistent commitment to international operations (Cavusgil and Zou, 1994). As such it is hypothesised that:

- H8.* The international experience of the firm is a predictor for Australian export market ventures that experience high (vs low) export marketing performance.

Furthermore, the internet-export marketing performance relationship has not been tested on a performance measurement scale that is generally accepted to have cross-cultural validity (Julian, 2003). Export marketing performance has been measured, principally, in three different ways. First, by measuring export marketing performance using the economic indicators of performance, i.e. profit, sales, market share etc. The underlying theoretical justification for using economic indicators is that exporting is part of a firm's marketing program and performance should be measured in the same way that marketing operations are measured, in economic or financial terms (Zou *et al.*, 1998). Studies adopting such measures of export marketing performance have used indicators such as export sales (Madsen, 1989), export sales growth (Madsen, 1989), export profits (Johnson and Arunthanes, 1995) and export/sales ratio (Axinn, 1988).

Second, measurement of export marketing performance has also been via strategic outcomes, i.e. expand strategically into foreign markets, gain a foothold in the export market or simply to increase the awareness of the product/company. The underlying theoretical justification here is that firms have a set of strategic goals as well as economic goals in exporting (Cavusgil and Zou, 1994). This theoretical perspective

suggests that the attainment of strategic goals such as improved competitiveness, increased market share, or strengthened strategic position should be considered an integral part of export marketing performance. Studies that adopt this perspective often measure export marketing performance as the attainment of strategic goals such as market share, strategic presence in the export market, or competitive position (Cavusgil and Zou, 1994; Johnson and Arunthanes, 1995; Zou *et al.*, 1998).

Finally, measurement of export marketing performance has also been undertaken via perceptual or attitudinal measures. The theoretical perspective of using this approach is that being positively disposed toward exporting and/or satisfied with exporting operations is a strong indication of success in exporting. Studies adopting this perspective have measured a firm's export marketing performance either directly, such as perceived success or satisfaction with the venture (Cavusgil and Zou, 1994) or indirectly as the firm's attitude toward exporting (Johnston and Czinkota, 1982).

The variety of approaches to the measurement of export marketing performance makes it difficult to compare the findings of different studies. When conflicting findings are obtained by studies that employ different measurement schemes for export performance, it makes it impossible to identify whether the findings are because of the measurement scales or the independent variables being studied. As a result of the use of different measurement schemes, it is difficult to assess which of the individual factors are the strongest predictors of export marketing performance (Zou *et al.*, 1998).

The particular theoretical perspective adopted here is that export marketing performance is, first, measurable at the export venture level (that is, the product/market level). Secondly, it incorporates the major perspectives of export performance used in previous studies. Finally, it is consistent with the existing export performance measures used by studies in different countries (Cavusgil and Zou, 1994; Zou *et al.*, 1998).

The benefits of adopting this theoretical perspective are first, it focuses on export venture performance related to one product and one market overcoming the difficulties involved in attempting to measure firm level export performance. Secondly, it combines the three primary means of measuring export performance that have been used in previous studies: economic indicators, strategic indicators and satisfaction with the venture's export performance (Cavusgil and Zou, 1994; Zou *et al.*, 1998). As such, this theoretical perspective helps integrate the existing literature. Finally, it is also consistent with the export marketing literature generated in various countries, e.g. the USA (Cavusgil and Zou, 1994), Australia and the United Kingdom (Styles, 1998). Essentially, the theoretical perspective that has been adopted is that for export performance measurement scales to be reliable and valid across different national settings they need to include items that are drawn from multiple perspectives of previous studies conducted in various countries. That way the scale will reflect the fact that firms in different countries may tend to emphasise different types of performance measures for cultural, economic or sectoral reasons (Zou *et al.*, 1998). Thus, we argue that more conclusive evidence is required on the relationship between the internet, international experience of the firm and export marketing performance using such a measure of export marketing performance.

Research design

The study was based on an empirical investigation of firms that used the internet and were involved in exporting to foreign countries from Australia. The sample of firms

came from a wide cross section of industries and was provided by a state government department. In order to obtain valid and reliable measures of the variables, previously validated scales were used to measure export marketing performance and the uses of the internet (Cavusgil and Zou, 1994; Julian, 2003; Julian and Holtedahl, 2004). All items were measured via five-point bipolar scales with scale poles ranging from strongly disagree (1) to strongly agree (5) (Cavusgil and Zou, 1994). The questionnaire was developed and pre-tested using a small sample of exporters with the final instrument mailed to the sample that included 315 firms who were *apriori* identified as being involved in direct exporting, yielding 133 useable questionnaires being returned accounting for an effective response rate of 42.0 per cent and considered to be adequate (Groves, 1990).

The instrument contained items identified by the literature as to the use of the internet in export marketing (Bennett, 1997; Julian and Holtedahl, 2004), together with items intended to measure export marketing performance (Cavusgil and Zou, 1994; Julian, 2003). Bennett (1997) summarised the use of the internet in export marketing into seven primary areas, namely, communication, networking, market research, sales, image enhancement, cost reduction and competitive advantage.

Communication was measured via items that tapped the degree to which the internet improves internal communications, creates on going relationships with customers, is an important part of the firm's marketing communications mix and improves communications with suppliers and partners' overseas (Bennett, 1997; Hamill, 1997). Networking was measured via items that tapped the degree to which the internet helps make industry contacts and improves network relationships (Bennett, 1997; Hamill, 1997). Market research was measured via items that tapped the extent to which the internet helps with export marketing research, the extent to which the internet helps keep track of available foreign market information, industry developments, customer behaviour and generates useful feedback from foreign customers (Bennett, 1997; Hamill, 1997). Sales was measured via items that tapped the extent to which the internet helps a firm increase its sales volume, makes it easier to bypass local intermediaries, is an effective sales tool for foreign markets, creates sales leads, helps the firm sell anywhere in the world and whether the internet makes it easier for foreign customers to order goods (Bennett, 1997; Samiee, 1998). Image enhancement was measured via items that tapped the extent to which the internet helps introduce new products, makes it easier to serve niche markets, helps penetrate unfamiliar and secondary markets, generates international awareness about the business and creates a good business image (Bennett, 1997). Cost reduction was measured via items that tapped the extent to which the internet helps lower the costs of international marketing, reduces the cost of market information, makes exporting easier and helps to avoid bothering about foreign cultures and practices, foreign market representation and having to set up foreign branches (Bennett, 1997; Hamill, 1997). Competitive advantage was measured via items that assessed the extent to which the internet gives the company a competitive advantage over competitors and has an effect on the competitive intensity in the foreign market (Bennett, 1997). The international experience of the firm was measured by the number of years the firm had experience in international business and the number of foreign markets the firm had regular operations in (Cavusgil and Zou, 1994).

Export marketing performance has been measured via the use of economic indicators, strategic indicators and overall satisfaction with performance. As a result, this study used a composite measure of export marketing performance that incorporated all three measures of export marketing performance. The theoretical perspective behind this

conceptualisation is that it incorporates the major perspectives of export marketing performance used in previous studies by combining the three primary means of measuring export marketing performance, that is, economic export performance, strategic export performance and satisfaction with the performance of the export market venture into a composite scale (Cavusgil and Zou, 1994; Zou *et al.*, 1998). As such, this conceptualisation helps integrate the existing literature. It is also consistent with the export marketing literature generated in various countries where firms in different countries may tend to emphasise different types of performance measures for cultural, economic or sectoral reasons (Zou *et al.*, 1998).

From the pre-test strategic objectives were preset in the research instrument. Respondents were asked to indicate the relative importance attached to each objective by allocating a constant-sum (100 points) to the individual objectives proportional to their importance. Respondents were also asked to indicate their satisfaction with the achievement of those objectives. The extent to which the initial strategic objectives were achieved was computed as the weighted-sum of the importance of the initial strategic objectives. Respondents then indicated their perceived success of the export venture. Finally, the respondents were asked to indicate the overall profitability and the sales growth of the venture. These indicators were then summed into a composite scale for measuring export marketing performance (Cavusgil and Zou, 1994; Julian, 2003).

Results

Prior to analysing the data an “extrapolation procedure” technique was used to assess non-response bias. This assumes that the groupings of actual respondents by an identified criterion are similar to the “theoretical” non-respondents (Armstrong and Overton, 1977). Frequencies and independent *t*-tests were used to determine whether significant differences existed between the sample of 133 export market ventures and the target population of 315 based on their industry classification. No significant differences were identified between the sample and the target population for this classification variable. Therefore, as the results suggest that there are no significant differences between respondents and non-respondents, the sample can be considered sufficient to draw conclusions about export market ventures for the issues under study.

The data were initially analysed using principal components analysis to assess the psychometric properties of the instrument. Our primary concern was interpretability of the factors. All items loaded appropriately and no cross loadings above 0.2 were identified with only factor loadings of above 0.5 being accepted. Each scale was reviewed using factor analysis to establish that they were unidimensional. The final reliabilities for all scales were greater than 0.70 with a few over 0.80 (see Table I). Table I provides a summary of the constructs, alpha reliabilities and factor loadings.

The preliminary results indicated that the psychometric properties of the scale were acceptable and as such it was appropriate to examine the research hypotheses. To what extent is the export marketing performance of Australian export market ventures influenced by the internet when it is used for the purposes of communication, networking, market research, sales, image enhancement, cost reduction and competitive advantage when measured by a performance measure that includes satisfaction with performance, economic performance and strategic output performance.

To explore the influence of the different uses of the internet (communication, networking, market research, sales, image enhancement, cost reduction and competitive advantage) on export marketing performance, we used two-group discriminant analysis in order to determine which variables (Internet usage) best distinguished

Factor/statement Name	Cronbach's alpha	Dominant statements	Factor loadings
Factor 1 Communication	0.72	The internet improves communications with suppliers and partners overseas.	0.89
		The internet creates ongoing relationships with customers.	0.75
		The internet leads to improved internal communications.	0.59
		The internet is an important part of the firm's marketing communications mix.	0.52
Factor 2 Networking	0.71	The internet helps make industry contacts.	0.91
		The internet helps improve network relationships.	0.78
Factor 3 Market research	0.76	The internet helps keep track of available foreign market information.	0.79
		The internet helps with export marketing research.	0.74
		The internet helps keep up to date with industry developments.	0.74
		The internet helps generate useful feedback from foreign customers.	0.67
		The internet helps track individual customer behaviour.	0.62
Factor 4 Sales	0.81	The internet helps increase sales volume without physically expanding the business.	0.76
		The internet makes it easier to bypass local intermediaries in foreign markets.	0.75
		The internet makes it easier for foreign customers to order goods.	0.71
		The internet helps the firm sell anywhere in the world.	0.71
		The internet is an effective sales tool for foreign markets.	0.69
		The internet creates sales leads.	0.68
Factor 5 Image enhancement	0.79	The internet helps penetrate unfamiliar foreign markets.	0.77
		The internet stimulates secondary markets.	0.70
		The internet makes it easier to serve niche markets.	0.70
		The internet creates a good business image.	0.69
		The internet generates international awareness about the business.	0.69
Factor 6 Cost reduction	0.83	The internet helps introduce new products.	0.63
		The internet helps to avoid obtaining foreign market representation.	0.83
		The internet avoids having to set up new branches.	0.81
		The internet lowers the cost of international marketing.	0.76
		The internet helps to avoid bothering about foreign cultures and practices.	0.72
		The internet makes exporting easier.	0.65
Factor 7 Competitive advantage	0.71	The internet helps reduce the costs of market information.	0.63
		The internet has an effect on the intensity of competition in the foreign market in which the company operates.	0.88
		The internet gives the company a competitive advantage over competitors.	0.88

Table I.
Summary of factor analysis

between firms with high- vs low- marketing performance. We also included two categorical variables in the discriminant analysis that measured the international experience of the firm, as we believed the international experience of the firm maybe significant in discriminating between high and low export marketing performance (Cavusgil and Zou, 1994). All variables were entered simultaneously in the discriminant analysis so as to determine which variables were the best discriminators, after controlling for all other variables (Jackson, 1983). The different uses of the internet were each measured on composite scales created by summing the items, respectively. In the discriminant analysis, the two groups were identified by splitting the groups at the median score for the composite measure of export marketing performance that included overall satisfaction with the success of the export market venture, strategic output and economic performance.

The objective of discriminant analysis is to statistically distinguish between two or more groups of cases. These groups are defined by the particular research situation. In this study on the internet and export marketing performance the interest is to classify the export market ventures into low and high marketing performers using a composite measure of marketing performance to see if the discriminating variables will distinguish between the groups. Group 1 consisted of all those export market ventures that were classified as low marketing performers. Group 2 consisted of all those export market ventures that were classified as high marketing performers.

In the discriminant analysis, we examined marketing performance perceptions by using a composite measure of export marketing performance that included satisfaction with performance, strategic output performance and economic performance. In the discriminant analysis, the discriminant function was significant (Chi-square [composite measure of marketing performance] = 44.73, $df = 18$; $p = 0.000$). Table II gives the correlations between each discriminating variable and its respective discriminant function. For the composite measure that was used to assess export marketing performance the strongest predictors were the two categorical variables intended to measure the international experience of the firm being the number of years the firm had been in international business and the number of markets the firm had regular operations. Together with internet usage when used to achieve a reduction in costs when doing international business and to achieve a competitive advantage for the firm. Other uses of the internet that included communication, networking, market research, sales and image enhancement were deemed to have a non-significant impact on the export marketing performance of the export ventures being studied. As such, $H6$, $H7$ and $H8$ were accepted and $H1$, $H2$, $H3$, $H4$ and $H5$ were rejected.

Characteristics	Composite measure of performance	p
Years in international business	0.261	<0.05
Number of foreign markets	0.367	<0.01
Communication	-0.094	Ns
Networking	-0.013	Ns
Market research	0.018	Ns
Sales	0.183	Ns
Image enhancement	0.215	Ns
Cost reduction	0.234	<0.10
Competitive advantage	0.280	<0.05

Table II.
Discriminant analysis – structure matrix

To assess how effectively the derived discriminant functions were able to classify cases, we generated a confusion matrix and applied the jackknife (leave-one-out) method for classification (Crask and Perreault, 1977). For the composite measure of export marketing performance, internet usage and the international experience of the firm, 78.9 per cent of the grouped cases were correctly classified.

Largely, the results indicate that the export marketing performance of Australian export market ventures at an overall satisfaction level and at a strategic and economic level is influenced by internet usage when the internet is used for cost reduction purposes and to achieve a competitive advantage for the firm. Also, the international experience of the firm has a significant impact on export marketing performance at an overall satisfaction level and at an economic and strategic level.

Discussion and managerial implications

This study was founded on the premise that the internet as a business tool has experienced amazing growth in recent times and whilst previous research had attempted to determine the relationship between internet usage and export marketing performance previous research findings had been inconclusive and those studies were now quite dated requiring further investigation. As such, a robust empirical inquiry into the effect of the internet on export marketing performance when used for the purposes of communication, networking, market research, sales, image enhancement, cost reduction and competitive advantage was needed.

This issue together with the impact on export marketing performance of the international experience of the firm was considered worthy of investigation and as such the study has provided valuable insights into the impact of these variables on the export marketing performance of Australian export market ventures. The two uses of the internet in export marketing contributing significantly to the variation in the export marketing performance of Australian export market ventures were cost reduction and competitive advantage. This means that how an export market venture perceived the internet's usefulness in relation to cost reduction and competitive advantage could be used to significantly predict their marketing performance. It is important for the management of any company to be aware of these factors when using the internet in an export market venture of any magnitude.

As far as cost reduction was concerned the study findings demonstrate that by using the internet to avoid obtaining foreign market representation, to avoid having to set up foreign branches, to lower the cost of international marketing, to avoid having to bother about foreign cultures and practices, by making exporting easier and by reducing the costs of market information this will have a positive impact on export marketing performance. The managers of export firms need to be aware of this use of the internet for export marketing success.

In relation to the internet providing the firm with a competitive advantage the study findings demonstrate that if the internet was used to provide the firm with a competitive advantage over competitors this would have a positive impact on export marketing performance. Therefore, suggesting that the internet gives the firm a competitive advantage over competitors and reduces the intensity of competition in the foreign market the firm is operating in. The management of any export market venture needs to be aware of this and should use the internet as a competitive weapon for export marketing success.

Finally, in relation to the international experience of the firm, export marketing performance is enhanced by the international experience of the firm. Management's

international experience, competence and commitment to the venture make a positive contribution to export marketing performance, therefore, firms have much to gain if they hire or train qualified personnel, accumulate international experience in a programmatic manner, and allocate sufficient resources to fully capitalise on export market opportunities.

The present study has extended the literature on the relationship between the internet and export marketing performance in several areas within the specific Australian context. First, valid and reliable scales have been re-validated to examine the internet's use in export marketing in relation to communication, networking, market research, sales, image enhancement, cost reduction and competitive advantage. Second, the constructs developed here can serve as a foundation for further research into the internet and export marketing performance. Third, the study has contributed to a more comprehensive understanding of the success factors in export marketing and the role the internet plays. Fourth, evidence has been provided that the internet when it is used for cost reduction purposes will have a positive impact on export marketing performance. Fifth, the internet should be used as a competitive weapon because when it is it has a positive impact on export marketing performance. Finally, further evidence has been provided on the significance of the international experience of the firm and its positive relationship with export marketing performance.

Limitations and future research directions

A logical extension of this study would be to test the stability of the factor structures developed across time. A similarity between the factor structures identified in the replication study for internet usage and the factor structures obtained here would indicate that the present ones are stable across time. Another extension of the current study would be to test the stability of the factor structures developed in this study on the basis of a sample of export market ventures located in a different national setting, e.g. Thailand. Also, a high similarity between the factor structures obtained from the replication study and those obtained from the present one would indicate that the factor structures of this study are stable in different national settings. Therefore, if that was the case, this study's findings on the impact of internet usage on export marketing performance would then be comparable to findings in different national settings using similar measures. If similar findings could be produced from both studies using similar measures for internet usage such a finding would provide support for the claim of generalizability of the factor structures identified in this study. As such, suggesting an acceptable measure of internet usage when used for the purposes of communication, networking, market research, sales, image enhancement, cost reduction and competitive advantage.

Some limitations of this study should also be noted. First, as identified in the methodology section, utmost care has been taken in identifying and selecting the variables, and systematic procedures have been followed at every step of the study, however, caution should be exercised in inferring causality from the relationships tested. The cross-sectional nature of the data makes this inference tenuous. Second, from a methodological perspective, a potential concern may be that the measures are all self-reported. Consequently, the relationships tested may be susceptible to the influence of common method variance. Efforts were made to minimise the problem by pre-testing the instrument and selecting measures that minimise item overlap. While utmost care was taken in developing the instrument, items still may be interpreted differently by individuals with different cultural and organisational backgrounds.

Finally, the sample size was smaller than desired and the risk of misinterpreting the results due to sampling error increases with small sample sizes.

The primary objective of this study was to examine the impact of the internet on the export marketing performance of export ventures when used for the purposes of communication, networking, market research, sales, image enhancement, cost reduction and competitive advantage. Reliable measures have been developed for each use of the internet as identified by the literature as the primary uses of the internet in export marketing. Of the seven uses of the internet in export marketing two of the uses were identified as being able to discriminate significantly between high and low export marketing performance. These findings are major contributions to the exporting and internet literature and will require further research to test whether the measures are reliable and valid across time and in different national settings. However, the findings give other researchers a starting point in which different uses of the internet in export marketing can be examined to determine their impact on the export marketing performance of export ventures in different environments and in different national settings.

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